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(54) ELECTROSTATIC CHUCK MEMBER AND PRODUCTION THEREOF

(57)Abstract:
PROBLEM TO BE SOLVED: To obtain an electrostatic chuck member having high volume resistivity with low fluctuation in which the quality is stabilized by providing an undercoat on a metal substrate through metallic spraying and then providing a ceramic spray coating containing a specified compound thereon.
SOLUTION: An undercoat is provided on a metal substrate through metallic spraying and a coating of Al2O3.TiO2 based ceramic containing a TinO2n- (n=1-9) type compound is provided thereon by spraying. The metallic spray coating is 30-150μm thick and the Al2O3.TiO2 based ceramic spray coating containing a TinO2n-1 (n=1-9) type compound is 50-500μm. The Al2O3.TiO2 based ceramic spray coating containing a TinO2n-1 (n=1-9) type compound has porosity of 0.4-3.0% and surface roughness Ra of 0.1-2.0μm. The Al2O3.TiO2 based ceramic spray coating has a hole sealing layer on the surface and the volume resistivity thereof is in the range of 1×10-9-1×1011Ω.cm.